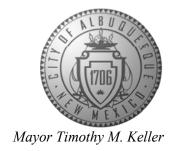
## CITY OF ALBUQUERQUE

Planning Department Alan Varela, Director



January 18, 2024

Ronald Bohannan, P.E. Tierra West, LLC 5571 Midway Park Place NE Albuquerque, NM, 87109

RE: Sage Plaza Self Storage Grading and Drainage Plans Engineer's Stamp Date: 01/04/24 Hydrology File: M09D012B

Dear Mr. Bohannan:

Based upon the information provided in your submittal received 01/11/2024, the Grading & Drainage Plans are approved for Building Permit, and Grading Permit. Please attach a copy of this approved plan in the construction sets for Building Permit processing along with a copy of this letter.

PO Box 1293

#### PRIOR TO CERTIFICATE OF OCCUPANCY:

Albuquerque

1. Engineer's Certification, per the DPM Part 6-14 (F): *Engineer's Certification Checklist For Non-Subdivision* is required.

NM 87103

2. Please provide the executed paper Drainage Covenant (latest revision) printed on one-side only with Exhibit A and a check for \$25.00 made out to "Bernalillo County" for the stormwater quality pond per Article 6-15(C) of the DPM to Hydrology for review at Plaza de Sol.

www.cabq.gov

If the project total area of disturbance (including the staging area and any work within the adjacent Right-of-Way) is 1 acre or more, then an Erosion and Sediment Control (ESC) Plan and Owner's certified Notice of Intent (NOI) is required to be submitted to the Stormwater Quality Engineer (Doug Hughes, PE, jhughes@cabq.gov, 924-3420) 14 days prior to any earth disturbance.

If you have any questions, please contact me at 924-3995 or rbrissette@cabq.gov.

Sincerely,

Renée C. Brissette, P.E. CFM Senior Engineer, Hydrology

Renée C. Brissette

Planning Department



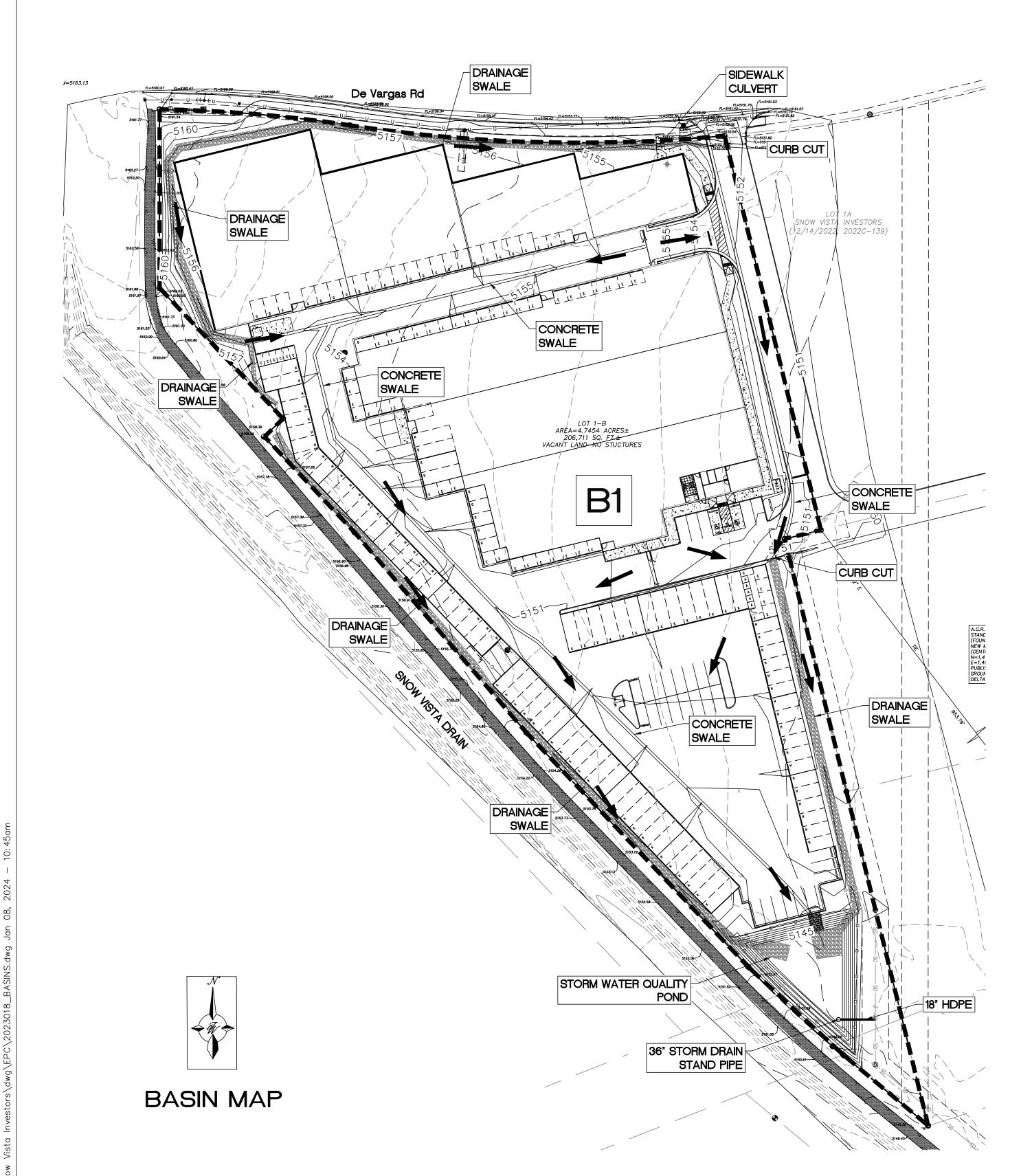
# City of Albuquerque Planning Department

Planning Department
Development & Building Services Division

## DRAINAGE AND TRANSPORTATION INFORMATION SHEET (DTIS)

Project Title:		Hydrology File #				
Legal Description:						
City Address, UPC, OR Parcel	·					
Applicant/Agent:		Contact:				
		Phone:				
Email:						
Applicant/Owner:		Contact:				
		Phone:				
Email:						
(Please note that a DFT SITE is or	ne that needs Site Plan A	pproval & ADMIN SITE is one that does not need it.)				
TYPE OF DEVELOPMENT:	PLAT (#of lots)	RESIDENCE				
	DFT SITE	ADMIN SITE				
RE-SUBMITTAL: YES	NO					
<b>DEPARTMENT:</b> TRANS	SPORTATION	HYDROLOGY/DRAINAGE				
Check all that apply under Both	the Type of Submittal	and the Type of Approval Sought:				
TYPE OF SUBMITTAL:		TYPE OF APPROVAL SOUGHT:				
ENGINEER/ARCHITECT CE	RTIFICATION	BUILDING PERMIT APPROVAL				
PAD CERTIFICATION		CERTIFICATE OF OCCUPANCY				
CONCEPTUAL G&D PLAN		CONCEPTUAL TCL DFT APPROVAL				
GRADING & DRAINAGE PI	LAN	PRELIMINARY PLAT APPROVAL				
DRAINAGE REPORT		FINAL PLAT APPROVAL				
DRAINAGE MASTER PLAN		SITE PLAN FOR BLDG PERMIT DFT				
CLOMR/LOMR		APPROVAL				
TRAFFIC CIRCULATION LA	AYOUT (TCL)	SIA/RELEASE OF FINANCIAL GUARANTEE				
ADMINISTRATIVE		FOUNDATION PERMIT APPROVAL				
TRAFFIC CIRCULATION LA APPROVAL	AYOUT FOR DFT	GRADING PERMIT APPROVAL				
TRAFFIC IMPACT STUDY (	TIS)	SO-19 APPROVAL				
STREET LIGHT LAYOUT	. ,	PAVING PERMIT APPROVAL				
OTHER (SPECIFY)		GRADING PAD CERTIFICATION				
official (of Boil 1)	_	WORK ORDER APPROVAL				
		CLOMR/LOMR				
		OTHER (SPECIFY)				
DATE SUBMITTED:						

REV. 09/13/23



## HYDROLOGY NOTES

THE PROJECT SITE IS LOCATED ON THE WEST SIDE OF ALBUQUERQUE, AND IS BOUNDED BY THE SNOW VISTA DIVERSION CHANNEL TO THE WEST, DE VARGAS RD. TO THE NORTH AND EAST OF THE VACANT LANDS FRONTING SNOW VISTA BLVD. A STORAGE FACILITY IS BEING PROPOSED TO BE CONSTRUCTED ON THE WESTERN TRACT (LOT 1-B) 4.75 ACRE PROPERTY. IT WILL HAVE 2 ACCESS ENTRANCES TO A SHARED ACCESS ROAD ON THE EAST SIDE OF THE PROPERTY. THE SITE IS SHOWN ON ZONE ATLAS PAGE M-9-Z.

THE SITE IS NOT LOCATED IN A 100YR FLOOD ZONE PER FEMA FIRM MAP 35001CO336H, AUGUST 2012.

## BASIN DATA

THE INTENT OF THIS PLAN IS TO PROVIDE COMPLETE DETENTION OF THE DEVELOPED WATER QUALITY VOLUME FOR THE 100 YEAR, 24 HR. STORM FOR ALL OF LOT 1—B. THIS GRADING PLAN WILL CONTAIN THE RUN—OFF FROM ALL BUILDINGS PER THE APPROVED SITE PLAN. THE SITE HAS BEEN GRANTED FREE DISCHARGE AS THE RUN—OFF VOLUMES HAVE BEEN ACCOUNTED FOR IN THE OVERALL MASTER DRAINAGE PLAN.

#### ACS BENCHMARK

A.G.R.S. MONUMENT "11\_M9"

STANDARD C.O.A. ALUMINUM DISC

(FOUND IN PLACE)

NEW MEXICO STATE PLANE COORDINATES

(CENTRAL ZONE-N.A.D. 1983)

N=1,474,735.261 US SURVEY FEET

E=1,493,878.618 US SURVEY FEET

PUBLISHED EL=5139.276 US SURVEY FT (NAVD 1988)

GROUND TO GRID FACTOR=0.999682709

DELTA ALPHA ANGLE=-0°16'52.37"



AI IAISSI .

LEGAL DESCRIPTION

LOT "1B", SNOW VISTA INVESTORS, AS THE SAME IS SHOWN AND DESIGNATED ON THE PLAT ENTITLED "PLAT OF LOTS 1A, 1B, 1C, 1D AND 1E, SNOW VISTA INVESTORS, TOWN OF ATRISCO GRANT, PROJECTED SECTION 33, TOWNSHIP 10 NORTH, RANGE 2 EAST, N.M.P.M., ALBUQUERQUE, BERNALILLO COUNTY, NEW MEXICO," FILED IN THE OFFICE OF THE COUNTY CLERK OF BERNALILLO COUNTY, NEW MEXICO, ON DECEMBER 14, 2022, IN PLAT BOOK 2022C, PAGE 139.

## **DPM CH6 HYDROLOGY SECTION**

Precipitation Zone 1
SAGE PLAZA STORAGE

SW Corner of De Vargas Rd & Snowvista Blvd, Albuquerque, NM.

TWLLC

Date

12/20/2023

## HYDROLOGY CALCULATION TABLES

#### **Historic Conditions**

Basin Descriptions							100-Year, 6-Hour								
Basin	Basin Tract Area Area Area Treatment A Treatment B Treatment C Treatment D							Weighted E	Volume	Flow					
ID	Hact	(sf)	(acres)	(sq miles)	%	(acres)	%	(acres)	%	(acres)	%	(acres)	(in)	(ac-ft)	cfs
B1	1-B	206,385	4.74	0.00740	100%	4.738	0%	0.000	0%	0.000	0%	0.000	0.550	0.217	7.30
Total		206,385	4.74	0.00740		4.738		0.000		0.000		0.000		0.217	7.296

Weighted E = Ea\*Aa + Eb\*Ab + Ec\*Ac + Ed

Flow = Qa\*Aa + Qb\*Ab + Qc\*Ac + Qd\*Ad

Volume = Weighted E \* Total Area

**Equations:** 

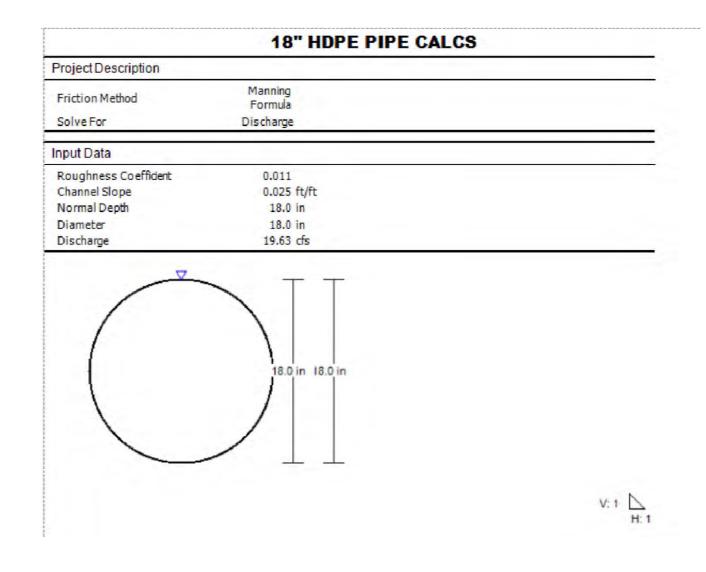
## **Proposed Conditions**

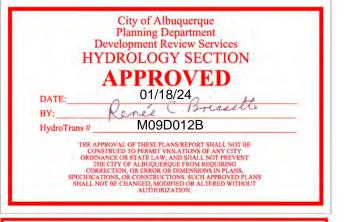
Basin Descriptions							100-Year, 6-Hour								
Basin	Tract	Area	Area	Area	Treatment A	Tr	eatment	В	Treatment C		Treatment	D	Weighted E	Volume	Flow
ID		(sf)	(acres)	(sq miles)	%	(acres)	%	(acres)	%	(acres)	%	(acres)	(in)	(ac-ft)	cfs
B1	1-B	206,385	4.74	0.00740	0%	0.000	0%	0.000	15%	0.711	85%	4.027	2.047	0.808	18.63
		1											1		
Total		206,385	1.31	0.00740		0.000		0.000		0.711		4.027		0.808	18.632

Stormwater Quality Volume						
Total Impervious Area =	ΣArea in "Treatment D"					
Retainage depth = 0.42" Per DPM	0.4200	IN				
Retention Volume =	0.42 x area D /12	CF				
Area D (4.027 AC-FT) =	175,416	CF				
Volume Required =	6140	CF				
Volume Provided =	6805	CF				

Volume Provided	1 =		0805	
PONE	VOLUM	E CALCULA	ATIONS	1
ELEVATION (ft)	AREA (sf)	VOLUME (cf)	CUMULATIVE VOLUME (cf)	
44.5	2627	0	0	
45.5	3379	3003	3003	
46.5	4225	3802	6805	INV
47.5	5164	4694.5	11500	
	F	OND STOR	RAGE	<u> </u>
ACTUAL	Н	VOLUME	Q	VOLUME
ELEV.	(FT)	(CF)	(CFS)	(AC-FT)
44.5	0.00	0	0.00	0.0000
45.5	0.00	3003	0.00	0.0689

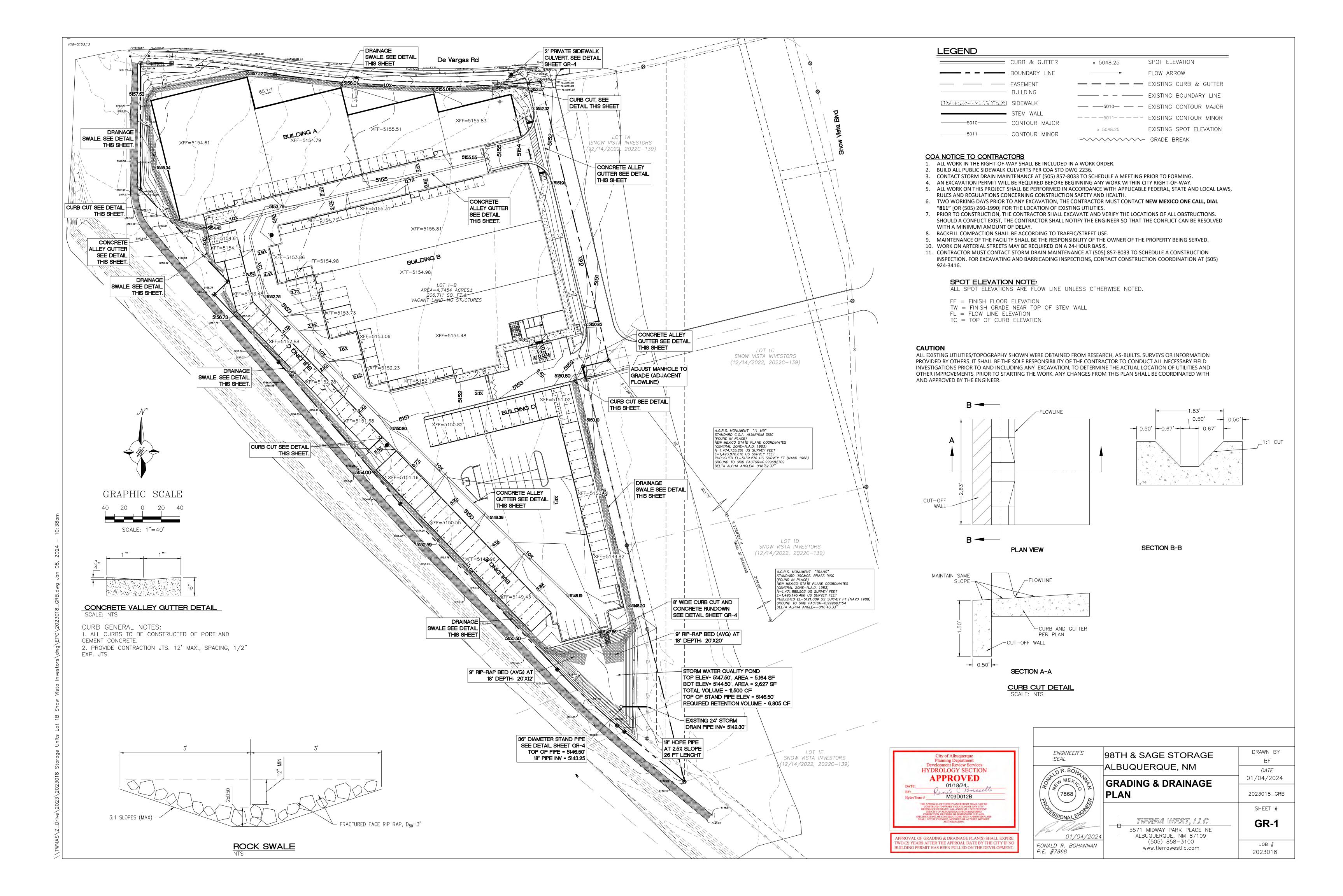
44.5	0.00	0	0.00	0.0000
45.5	0.00	3003	0.00	0.0689
46.5	0.00	6805	0.00	0.1562
47.5	1.00	11500	34.04	0.2640
	Orific	e Equatio	n	
Q =	CA(2gF	1)^(0.5)		
C =	0.6			
$A(FT^2) =$	7.07	3' STAND PIF	PE	
H (Ft) =	1.00			
Q (CFS)=	34.04			

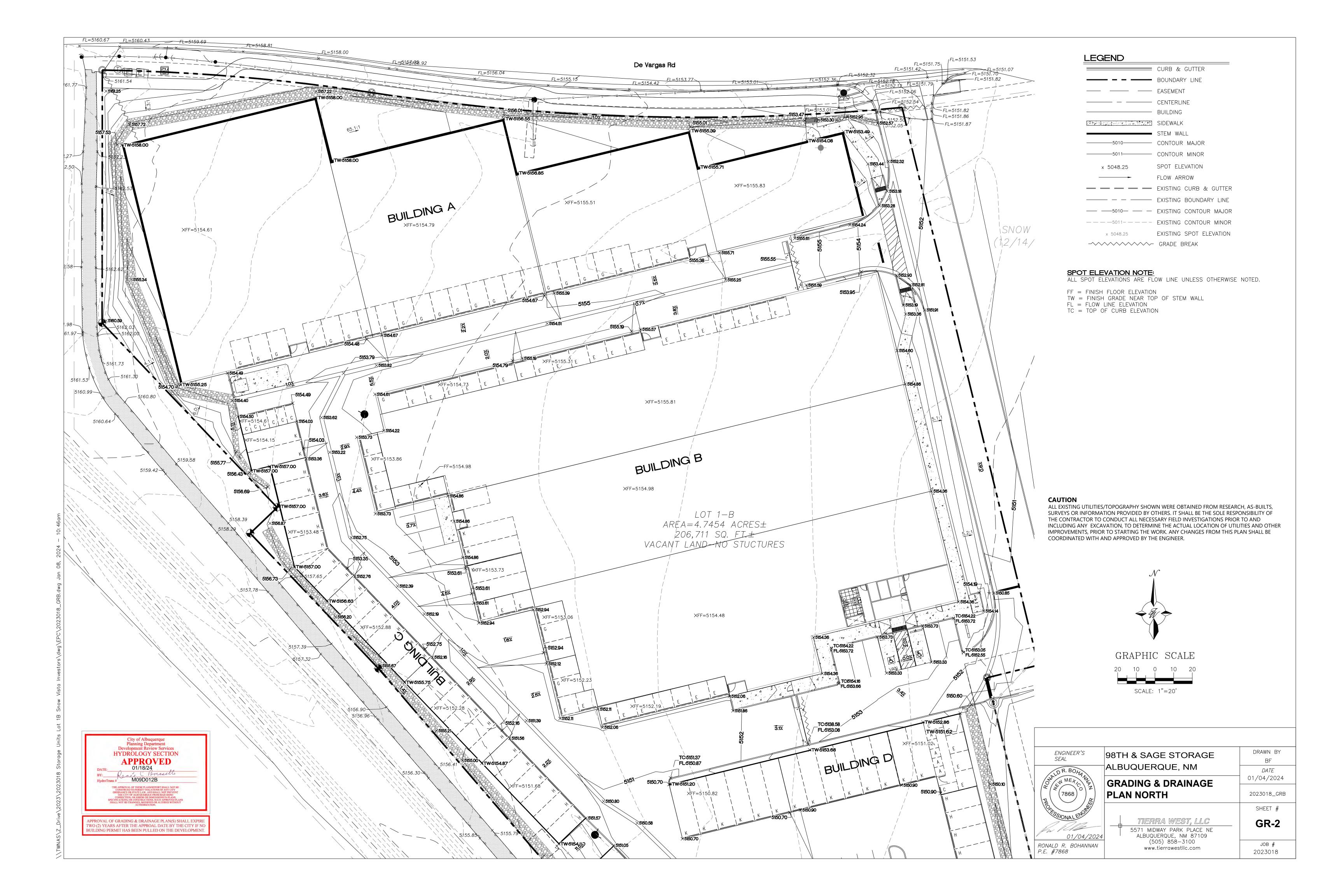


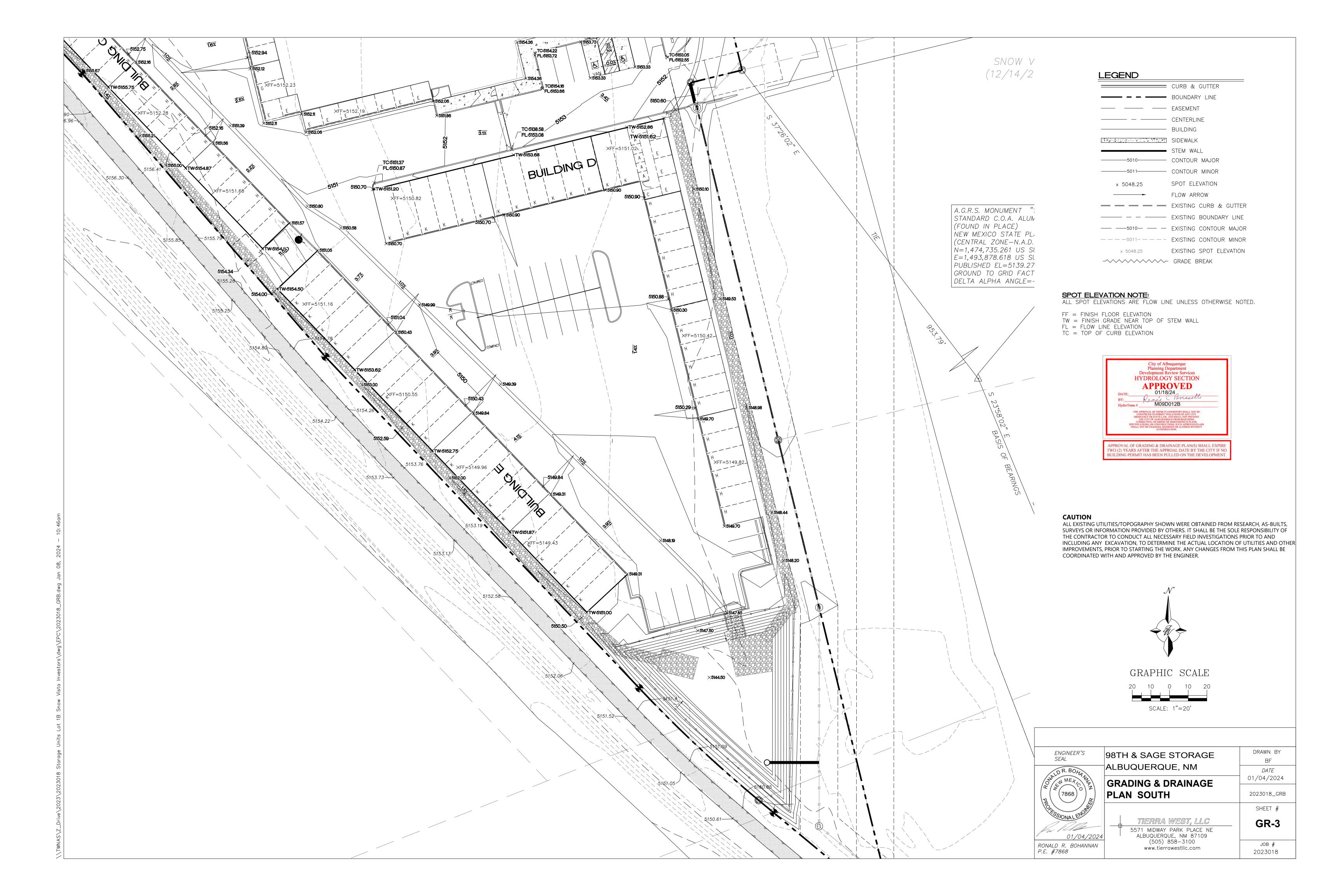


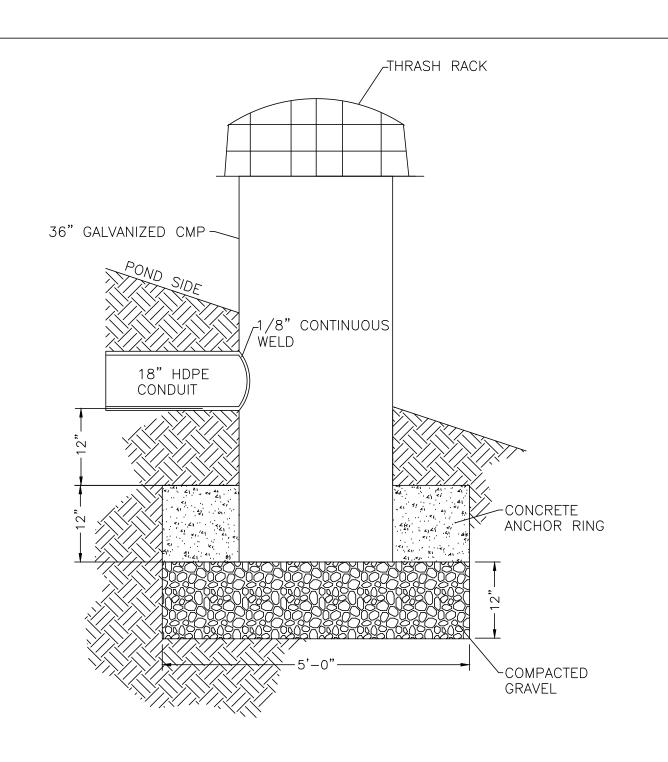
APPROVAL OF GRADING & DRAINAGE PLAN(S) SHALL EXPIRE TWO (2) YEARS AFTER THE APPROAL DATE BY THE CITY IF NO BUILDING PERMIT HAS BEEN PULLED ON THE DEVELOPMENT.

ENGINEER'S SEAL	98TH & SAGE STORAGE	DRAWN BY BF
ALD R. BOHA	ALBUQUERQUE, NM	DATE
DR. BOHANZ ON MEXICO Z 7868	GRADING AND DRAINAGE BASIN MAP	01/04/2024 2023018_BASINS
01/04/2024	TIERRA WEST, LLC  5571 MIDWAY PARK PLACE NE ALBUQUERQUE, NM 87109	SHEET #  GR-0
ONALD R. BOHANNAN E. #7868	(505) 858-3100 www.tierrawestllc.com	JOB # 2023018







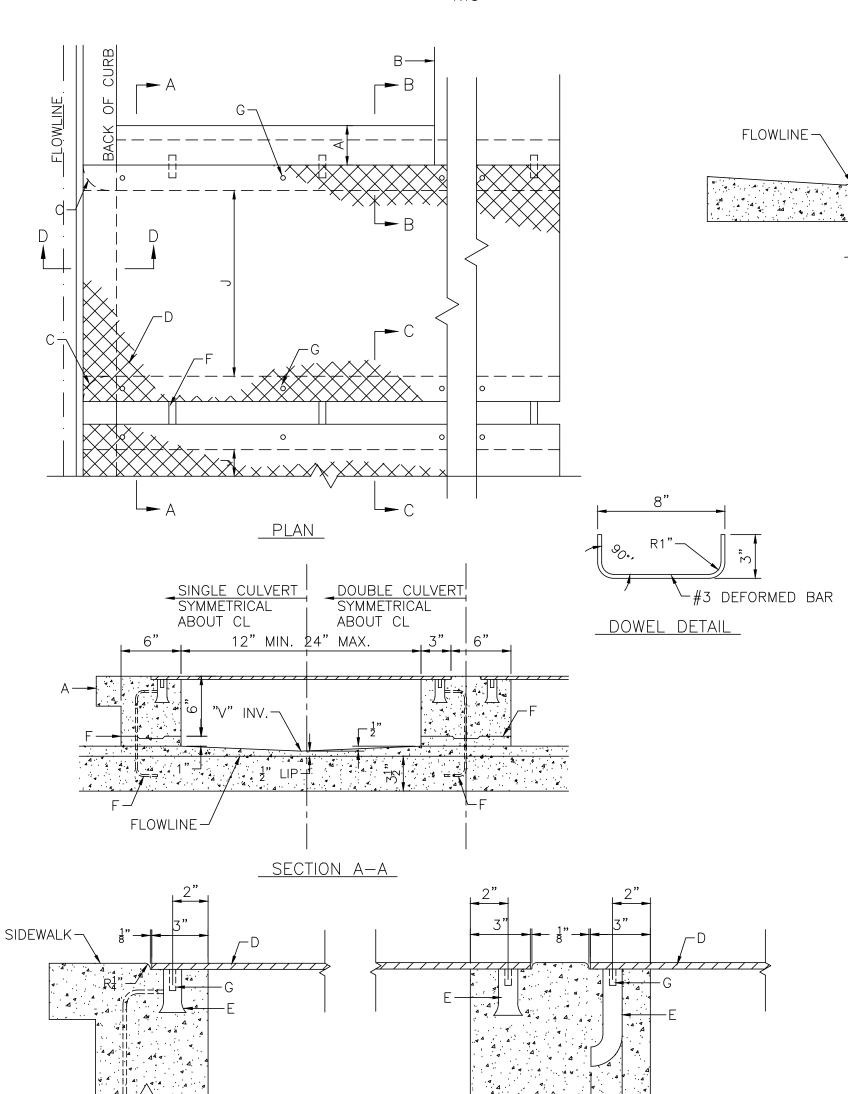


## CMP RISER DETAIL

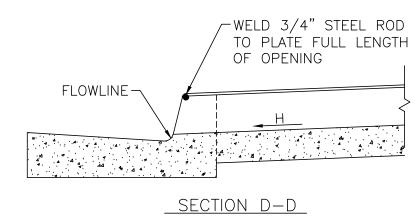
2" TYP.

SIDEWALK CULVERT DETAIL

SECTION C-C



SECTION B-B

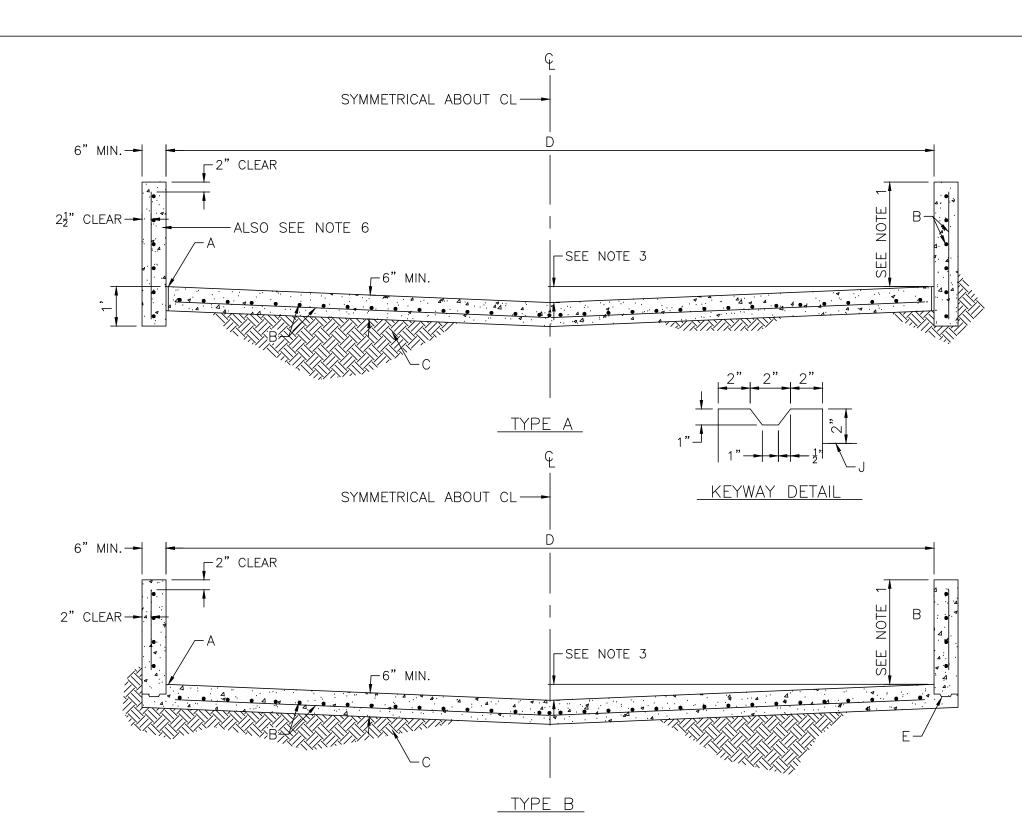


## GENERAL NOTES:

- PLACING OF DRAIN THRU EX. SIDEWALK AND C&G REQUIRES THAT ENTIRE STONES BE REMOVED AND REPLACED AS DETAILED.
- 2. BOTTOM SLAB OF CULVERT SHALL BE POURED MONOLITHICALLY WITH NEW GUTTER
- 3. THE INVERT SHALL BE TROWELED TO PRODUCE A HARD POLISHED SURFACE OF MAX DENSITY AND SMOOTHNESS. INVERT SHALL BE V-SHAPED TO WITHIN 3" OF OUTLET, THEN WARPED TO PARALLEL FLOWLINE AT OUTLET.
- 4. ALL EXPOSED CONC. SURFACE SHALL MATCH GRADE. COLOR, FINISH AND SCORING OF ADJACENT CURB AND SIDEWALK
- 5. SIDEWALK REPLACED DURING CONSTRUCTION SHALL BE POURED MONOLITHICALLY WITH CULVERT WALLS.
- 6. IF ROD ANCHORS ARE USED, DRILL & TAP FOR F.H.
  MACHINE SCREW. ATTACH ANCHORS TO PLATE AND SECURE
  PLATE IN PLACE PRIOR TO POURING WALLS.
- 7. LENGTH OF EACH PLATE SHALL BE SUCH THAT THE WEIGHT WILL NOT EXCEED 300LDS. AND SHALL BE STRESS RELIEVED AFTER FABRICATION. CLEAN SURFACE OF PLATE AND FRAMING MEMBERS AND PAINT W/ONE SHOP COAT RED OXIDE AND TWO FINISH COATS ALUMINUM PAINT (AASHTO M 69)
- 8. THE CITY WILL NOT ASSUME RESPONSIBLITY FOR MAINTENANCE OF ANY SIDEWALK CULVERT INSTALLED BY OR FOR PRIVATE PROPERTY OWNERS

## CONSTRUCTION NOTES:

- A. MATCH NEAREST CONTROL JOINT, INSTALL 1/2" EXPANSION JOINT
- B. EDGE OF SIDEWALK OR SETBACK
- C. 3" RADIUS
- D. 3/8" CHECKERED STEEL PLATE (PAINT PER NOTE 7, ABOVE)
- E. FOR SECURING PLATE USE 1"x5" S.S. ROD ANCHOR, "RED HEAD MULTI-SET II SRM-38 ANCHOR" OR APPROVED EQUAL. INSTALL PER MANUFACTOR'S INSTRUCTIONS AT MAX. 24" O.C. A MIN. OF 2 PER SIDE AND ONE WITHIN 6" OF EACH OTHER
- F. CONSTRUCTION JOINT IS OPTIONAL. IF USED SPACE DOWELS AT 18" O.C. MAX. 1-1/2" MIN. FROM FACE OF CONC.
- G. 3/8" 16x1-1/4" COUNTERSUNK, F.H. STAINLESS STEEL, MACHINE SCREW.
- H. SLOPE 1/4" PER FT. MIN.
- J. DRAIN WIDTH PER PLAN (12" MIN, 24" MAX.)

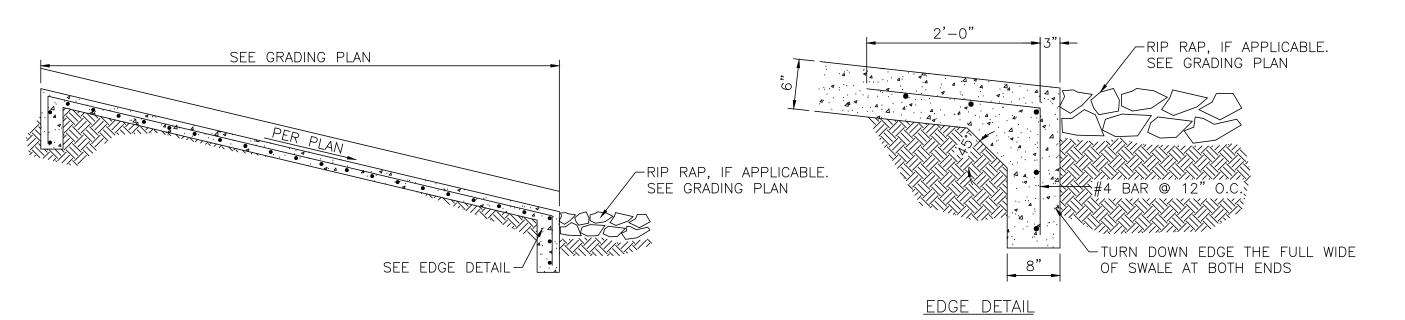


## GENERAL NOTES:

- CHANNEL DEPTHS EXCEEDING 2' WILL REQUIRE SEPARATE DESIGN FOR FLOOR AND WALLS.
- 2. TYPE B LINING WILL BE USED ONLY WHERE NO UTILITIES ARE LOCATED OR PROPOSED.
- 3. UP TO 16' WIDTH USE 4" INVERTED CROWN. 16' WIDTH AND OVER USE 6" INVERTED CROWN.
- 4. WARNING: THESE WALLS ARE NOT DESIGNED TO SUPPORT THE ADDITION OF GARDEN OR RETAINING TYPE WALLS.
- 5. THE OUTSIDE OF DRAINAGE WALLS SHALL NOT EXTEND BEYOND EASEMENT LINES OR ROW LINES.
- 6. 6" CONC. BLOCK WITH CORES FILLED WITH CONC. AND #4 BARS INSERTED INTO CORES AT 1'-6" O.C. MAY BE SUBSTITUTED FOR FORMED CONC. WALLS.

#### CONSTRUCTION NOTES:

- A. EXPANSION JOINT
- B. #4 REBARS @ 6" O.C. LONG AND 12" O.C. TRANSVERSE
- C. 6" COMPACTED SOIL 95% ASTM D 1557
- D. WIDTH OF CHANNEL
- E. KEYED CONSTRUCTION JOINT



CONCRETE DRAINAGE RUNDOWN



ENGINEER'S SEAL	98TH & SAGE STORAGE	DRAWN BY
DR. BOHA	ALBUQUERQUE, NM	DATE
ON METICO Z	GRADING & DRAINAGE	01/04/2024
( (7868 ) )	DETAILS	2023018_GRB
PROTEIN OF THE STONAL ENGINEER		SHEET #
01/04/2024	5571 MIDWAY PARK PLACE NE ALBUQUERQUE, NM 87109	GR-4
RONALD R. BOHANNAN P.E. #7868	(505) 858-3100 www.tierrawestllc.com	JOB # 2023018